UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,210	10/04/2000	Donald F. Gordon	SEDN/246CIP1	8170

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EXAMINER
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/679,210	GORDON ET AL.
	Examiner	Art Unit	
	ANNAN Q. SHANG	2424	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 February 2009*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18 and 20-23* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-18 and 20-23* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

U.S. Patent and Trademark Office
PTOL-326 (Rev. 08-06)   Office Action Summary   Part of Paper No./Mail Date 20090412

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the

fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since

this application is eligible for continued examination under 37 CFR 1.114, and the fee

set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office

action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

02/03/09 has been entered.

Response to Arguments

2.   Applicant's arguments with respect to claims 1-18 and 20-23 have been

considered but are moot in view of the new ground(s) of rejection discussed below.

With respect to the rejection of the last office action, Applicant amends claims

and further argues that the prior arts of record do not teach the amended claims

limitations (see page 7 of 9 of Applicant's Remarks).

In response, Examiner disagrees. Examiner notes Applicant's

amendments/arguments, however, Eyer further discloses where the IPG Translator 220

and Subscriber Authorization Center (SAC) 240 performs function of bandwidth

manager (col.1, lines 42-45, col.7, line 66-col.8, line 1+ and col.21, line 66-col.22, line

16). Hence the amended claims do not overcome the prior arts of record. The

amendment to the claims necessitated the new ground(s) of rejection discussed below.

This office action is non-final.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

.   4.   Claims 1-15 and 18-23, are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Eyer et al (6,401,242)** in view of **Hendricks et al (6,463,585)** and

further in view of **Chaney et al (5,515,106)**

As to claim 1, note the **Eyer et al** reference figure 2, disclose method and

apparatus for delivering an Interactive Program Guide (IPG) data, to Integrated

Receiver Decoders (IRDs) in a decoder population and further disclose a system for

providing IPG, comprising:

the claimed a plurality of encoding units operative to encode a plurality of IPG

pages and generate a plurality of streams…" is met by MPEG-2 Encoders 1-N or 220-

230 (fig. 2, col. 5, lines 44-67 and col. 8, lines 16-32), which are operative to encode

National or Global-IPG data and Regional or Local-IPG data "a plurality of IPG pages"

and generate bundles of IPG data and Audio/Video (A/V) data "a plurality of streams,"

where bundles of IPG data and A/V data is assigned a respective packet identifier (PID)

(col. 10, lines 55-65 and col. 15, lines 54-63); note also col. 5, line 62-col. 6, line 12 and

col. 7, lines 9-26 of Eyer et al (5,801,753) which is incorporate by reference);

the claimed "at least one transport stream generator operatively coupled to the

plurality of encoding units…" is met by MUX/MOD 250 (col. 8, lines 29-32), which is

operatively coupled to MPEG-2 Encoders 1-N, the MUX/MOD 250 operative to receive

the multiplex selected ones of the bundles of IPG data and A/V data from one or more

MPEG-2 Encoders 1-N into one or more transport streams; and

the claimed "a session manager coupled to the at least one transport stream

generator..." is met by IPG Translator 220 and Subscriber Authorization Center (SAC)

240 (col. 6, lines 13-19 and col. 8, lines 6-28), which is coupled to MUX/MOD 250 and

operative to direct each MUX/MOD 250 to generate bundles of IPG data and A/V data

"one or more transport streams" based on interest, regional area or geographical area,

for transmission via Transmitter 110; where the IPG Translator 220 and Subscriber

Authorization Center (SAC) 240 performs function of bandwidth manager (col.1, lines

42-45, col.7, line 66-col.8, line 1+ and col.21, line 66-col.22, line 16), note that IPG

Translator 220 receives configuration data, group data such as, name, affiliation, etc., to

group the IPG-data based on interest, preferences, geographical, regional, local data.

Eyer fails to explicitly teach, generating IPG data based on usage.

However, note the **Hendricks et al** reference figures 1, 19-22, disclose targeting

advertisement using television delivery system, where an Operation Center (OC) 202

and a Headend 208 and its Network Controller 214 (col. 13, lines 8-27 and col. 14, lines

12-26), generates group assignment plan and assigns television terminals to group and

dynamically generates customizes menus on the fly based on the user interaction

"usage" to previous menus (fig. 17, col. 16, lines 55-67, col. 19, lines 49-62, col. 20,

lines 10-18, lines 36-40 and col. 55, line 64-col. 56, line 14).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to incorporate the teaching of Hendricks into the system of Eyer to

provide user-friendly or on-demand interactive program guide to the user, to enable the

user to navigate through as desired to retrieve programs.

Eyer as modified by Hendricks, fail to explicitly teach where each IPG page is

associated with a stream and is assigned a respective packet identifier (PID).

However, note the **Chaney** reference figures 1-2, discloses a method and

apparatus for transmitting/receiving a program guide for television services where the

program guide information is formed as a master guide and a special guide, each with a

stream and assigned a respective PID and where one carries information for several

hours and the other carries information for the next 30 days (col. 2, line 61-col. 3, line 6,

lines 37-54 and col. 4, line 59-col. 5, line 55).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to incorporate the teaching of Chaney into the system of Eyer as

modified by Hendricks to provide each guide with a respective PID to enable the

receiver to identify the guides, assemble each respective guide information, and update

the guide information accordingly.

As to claim 2, the claimed "a bandwidth manager..." is met by IPG Translator 220

and SAC 240 (col. 6, lines 13-19 and col. 8, lines 6-28), which is coupled to MUX/MOD

250 and operative to direct each MUX/MOD 250 to generate bundles of IPG data and

A/V data "one or more transport streams" based on interest, regional area or

geographical area, assigning IDs and different rates (col. 17, line 49-col. 18, line 7) for

the bundles and using various parameters for delivering of bundles to meet the

available bandwidth, for transmission via Transmitter 110 (col. 21, line 66-col. 22, line

7), but fails to explicitly teach monitoring usage of IPG data and reporting to the

Headend.

However, **Hendricks,** teaches Headend Controller 214, which monitors usage of

IPG menus, reports to OC 202 or HE 208, and generates menus on the fly based on

usage to the user(s) (fig. 17, col. 16, lines 55-67, col. 19, lines 49-62 and col. 55, line

64-col. 56, line 14).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to incorporate the teaching of Hendricks into the system of Eyer to

monitor the IPG menu usage at the terminals and dynamic modify the IPG menus

based on the usage and on-demand interactive program guide to meet the users'

request, and further provide user-friendly menus, which enables the user to navigate

through as desired, to retrieve programs.

As to claim 3, Eyer further discloses where the plurality of MPEG-2 Encoders

220-230 are operative to encode only once each IPG page to be transmitted from the

least MUX/MOD 250 (col. 6, lines 13-19 and col. 8, lines 6-32).

As to claims 4 and 5, Eyer fails to explicitly teach dynamically adjusting based on

demands from a neighborhood being served by the transport stream generator.

However, **Hendricks** further teaches dynamically adjusting Headend Modulators

based on demands from a geographical region being served by the transport stream

generator or Modulator (col. 19, lines 49-62 and col. 55, line 64-col. 56, line 14).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to incorporate the teaching of Hendricks into the system of Eyer to

dynamically adjust based on demands to better provide the needed services to the

users.

As to claims 5-8, Eyer fails to explicitly teach where the IPG Translator 220 and SAC

240 "session manager" directs a particular transport stream generator to generate an

additional transport stream as usage increases and exceeds the capacity of currently

transmitted transport stream(s), if the number of streams to transmitted by the particular

transport stream generator exceeds the capacity of currently transmitted stream(s), if a

required number of PIDs exceeds a maximum number of PIDs supported by the current

transmitted transport stream(s) and tear down a transport stream if usage falls below the

capacity of remaining transport streams.

However, **Hendricks** further teaches an operation center (OC) 202, in

communication with a plurality of Headend Controllers (HC) 214 of Headend 208, and

Headend(s) 208 monitors the interactivities "usage" of various Set-top Terminals 220

located in different geographical areas or regions, and dynamically instructs the

appropriate modulators or transport streams generators and allocates bandwidth as

demand increases, decreases, etc., (col. 19, lines 49-62 and col. 55, line 64-col. 56, line

14), which meets the claimed "directs a particular transport stream generator to

generate an additional transport stream as usage increases and exceeds the capacity

of currently transmitted transport stream(s), if the number of streams to transmitted by

the particular transport stream generator exceeds the capacity of currently transmitted

stream(s), if a required number of PIDs exceeds a maximum number of PIDs supported

by the current transmitted transport stream(s) and tear down a transport stream if usage

falls below the capacity of remaining transport streams."

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to incorporate the teaching of Hendricks into the system of Eyer to

dynamically adjust bandwidth based on demands to better provide the needed services

to the users.

As to claim 9, Eyer further discloses each MUX/MOD 250 "TS generator" is

operative to serve a respective group of terminals within a particular neighborhood (col.

3, lines 18-35, col. 7, lines 7-15 and col. 22, lines 17-29).

As to claim 10, Eyer further discloses where MUX/MOD 250 is operable to

provide differentiated IPG for different regions or geographical areas via the one or

more TS generated by the MUX/MOD 250 (col. 10, lines 10-48).

As to claim 11, Eyer further discloses where a plurality of transport streams are

generated by a particular MUX/MOD 250, and where each of the plurality of TSs

includes a respective set of IPG pages for different regions or geographical areas (col.

10, lines 10-48).

As to claim 12, Eyer further discloses where the plurality of transport streams

from the particular transport stream generator, include overlapping sets of IPG pages

(col. 7, lines 16-45).

As to claim 13, Eyer further discloses where each the plurality of transport

streams from a particular transport stream generator includes one or more common IPG

pages (col. 6, lines 1-12 and col. 10, lines 10-38).

As to claim 14, Eyer further disclose where the bundles of Global-IPG and Local-

IPG "sets of IPG pages" for the plurality of transport streams from the transport stream

generator are organized to reduce likelihood of switching between transport streams at

IRDs 130 or 300 (col. 6, lines 1-12 and col. 10, lines 10-38).

As to claim 15, Eyer further discloses where the Global-IPG and Local-IPG

pages for the plurality of transport streams from the particular transport stream

generator are organized to increase likelihood of PID transitions within the same

transport stream (col. 10, lines 10-38).

As to claim 18, note the **Eyer et al** reference figure 2, disclose method and

apparatus for delivering an Interactive Program Guide (IPG) data, to Integrated

Receiver Decoders (IRDs) in a decoder population and further disclose a system for

providing IPG, comprising:

the claimed "at least one transport stream generator..." is met by MUX/MOD

250/MPEG-2 Encoder 1 or 220 (MUX/MOD/MPEG-En 250/220) (col. 8, lines 29-32),

which includes MPEG-2 Encoder 1 or 220 "at least one encode unit" operative to

encode National or Global-IPG data and Regional or Local-IPG data (IPG-data) and

Audio/Video (A/V) data "a plurality of IPG pages" and generate a bundles of Global-IPG

data, Local-IPG data and A/V data "a plurality of streams," (fig. 4, col. 10, lines 10-38)

where MUX/MOD/MPEG-En 250/220 operatively generates bundles of Global-IPG data,

Local-IPG data and A/V data "one or more transport streams" having included therein

the Global-IPG data, Local-IPG data and A/V data for the Global-IPG data and Local-

IPG data "IPG pages" (col. 5, line 44-col. 6, line 12 and col. 15, lines 54-63);

the claimed "a session manager coupled to the at least one transport stream

generator..." is met by IPG Translator 220 and Subscriber Authorization Center (SAC)

240 (col. 6, lines 13-19 and col. 8, lines 6-28), which is coupled to MUX/MOD 250 and

operative to direct each MUX/MOD 250 to generate bundles of IPG data and A/V data

"one or more transport streams" based on interest, regional area or geographical area,

for transmission via Transmitter 110; where the IPG Translator 220 and Subscriber

Authorization Center (SAC) 240 performs function of bandwidth manager (col.1, lines

42-45, col.7, line 66-col.8, line 1+ and col.21, line 66-col.22, line 16), note that IPG

Translator 220 receives configuration data, group data such as, name, affiliation, etc., to

group the IPG-data based on interest, preferences, geographical, regional, local data.

Eyer fails to explicitly teach, generating IPG data based on usage.

However, note the **Hendricks et al** reference figures 1, 19-22, disclose targeting

advertisement using television delivery system, where an Operation Center (OC) 202

and a Headend 208 and its Network Controller 214 (col. 13, lines 8-27 and col. 14, lines

12-26), generates group assignment plan and assigns television terminals to group and

dynamically generates customizes menus on the fly based on the user interaction

"usage" to previous menus (fig. 17, col. 16, lines 55-67, col. 19, lines 49-62, col. 20,

lines 10-18, lines 36-40 and col. 55, line 64-col. 56, line 14).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Hendricks into the system of Eyer to provide user-friendly or on-demand interactive program guide to the user, to enable the user to navigate through as desired to retrieve programs.

Eyer as modified by Hendricks, fail to explicitly teach where each IPG page is associated with a stream and is assigned a respective packet identifier (PID).

However, note the **Chaney** reference figures 1-2, discloses a method and apparatus for transmitting/receiving a program guide for television services where the program guide information is formed as a master guide and a special guide, each with a stream and assigned a respective PID and where one carries information for several hours and the other carries information for the next 30 days (col. 2, line 61-col. 3, line 6, lines 37-54 and col. 4, line 59-col. 5, line 55).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Chaney into the system of Eyer as modified by Hendricks to provide each guide with a respective PID to enable the receiver to identify the guides, assemble each respective guide information, and update the guide information accordingly.

As to claim 20, note the **Eyer et al** reference figure 2, disclose method and apparatus for delivering an Interactive Program Guide (IPG) data, to Integrated Receiver Decoders (IRDs) in a decoder population and further disclose a method for providing IPG from a transmission source to a plurality of terminals, the method comprising:

IPG Translator 220, a CATV Headend system, receives configuration data, including associated parameters (col. 8, lines 6-28) from various IRDs 130 or 300 "plurality of terminals" in various regions or geographical areas during setup (col. 4, line 64-col. 5, line 11 and col. 6, line 1-18), determines the current capacity of IPG (National-Global or Regional-Local) data, Audio/Video (A/V) data, etc., "one or more transport streams" (col. 5, line 44-col. 6, line 12) being transmitted for the plurality of IRDs 130 or 300 "terminals;" comparing the configuration data, including associated parameters, etc., from the plurality of IRDs 130 or 300 against the current capacity and dynamically adjusting the number of transport streams to be transmitted to the plurality of IRDs 130 or 300 based on a result of the comparing (col. 10, lines 38-54, col. 11, lines 9-24, col. 17, lines 49-67 and col. 21, line 66-col. 22, line 7) and where the IPG Translator 220 and Subscriber Authorization Center (SAC) 240 performs function of bandwidth manager (col.1, lines 42-45, col.7, line 66-col.8, line 1+ and col.21, line 66-col.22, line 16).

Eyer fails to explicitly teach monitoring demands from a plurality of terminals and comparing the demands from the plurality terminals and dynamically adjusting the number of transport streams to be transmitted to the plurality of terminals based on a result of the comparing.

However, note the **Hendricks et al** reference figures 1 and 19-22, disclose a viewer interface for a television program delivery system and menu generation and menu selection of television programs, where Headend Controller 214, monitors demands from a plurality of terminals and compares the demands from the plurality

terminals and based on the result, dynamically generates on the fly menus and adjusts

the number of transport streams to be transmitted to the plurality of terminals to meet

the demands of the IPG menus based on the interaction to the IPG (fig. 17, col. 16,

lines 55-67, col. 19, lines 49-62, col. 20, lines 10-18, lines 36-40 and col. 55, line 64-col.

56, line 14).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to incorporate the teaching of Hendricks into the system of Eyer to

monitor the users demands or interaction to provide user-friendly or on-demand

interactive program guide to the user, to enable the user to navigate through as desired

to retrieve programs.

Eyer as modified by Hendricks, fail to explicitly teach where each IPG page is

associated with a stream and is assigned a respective packet identifier (PID).

However, note the **Chaney** reference figures 1-2, discloses a method and

apparatus for transmitting/receiving a program guide for television services where the

program guide information is formed as a master guide and a special guide, each with a

stream and assigned a respective PID and where one carries information for several

hours and the other carries information for the next 30 days (col. 2, line 61-col. 3, line 6,

lines 37-54 and col. 4, line 59-col. 5, line 55).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to incorporate the teaching of Chaney into the system of Eyer as

modified by Hendricks to provide each guide with a respective PID to enable the

receiver to identify the guides, assemble each respective guide information, and update

the guide information accordingly.

Claims 21-23, are met as previously discussed with respect to claims 5-8.

5.   Claims 16 and 17, are rejected under 35 U.S.C. 103(a) as being unpatentable

over **Eyer et al (6,401,242)** in view of **Hendricks et al (6,463,585)** and further in view of

Chaney et al (5,515,106) as applied to claims 1 above, and further in view of **McLaren**

(5,867,208).

As to claims 16 and 17, Eyer as modified by Hendricks and Chaney, fail to

explicitly teach where the encoding unit, implements slice-based encoding scheme, and

picture-based encoding scheme.

However, note the **McLaren** reference figures 1 and 2, discloses an interactive

television system, where a Broadcaster Center, includes an Encoder 106, which

implements slice encoding and picture encoding scheme to provide video content to

subscriber (col. 4, lines 47-67 and col. 11, line 59-col. 12, line 28).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to incorporate the teaching of McLaren into the system of Eyer as

modified by Hendricks and Chaney to include slice encoding and picture encoding to

allow for scrolling in the picture such that all portions of the picture or IPG can be

viewed on the subscriber television.

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q. Shang** whose telephone number is **571-272-7355**. The examiner can normally be reached on 700am-500pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Christopher S. Kelly** can be reached on **571-272-7331**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC) at 866-217-9197 (toll-free).**

/Annan Q Shang/

Primary Examiner, Art Unit 2424

Annan Q. Shang